AMENDMENTS

Please replace paragraph 30 with the following:

[0030] The second material 18 is any of now known or later developed materials for attenuating acoustic energy, such as ultrasound acoustic energy. For example, a cured epoxy with or without filler material is used. Where filler material is provided, the filler material is small enough to avoid reflections of acoustic energy. The second material 18 has an acoustic impedance that is at least 30 percent less than the acoustic impedance of the transducer material 12 in one embodiment. In alternative embodiments, a lesser difference in acoustic impedance is provided. In one embodiment, the second material 18 is selected to have as high a longitudinal wave acoustic impedance as possible while still attenuating the ultrasound energy. For example, filler material is added to synthesize an acoustic impedance of about 12 MRayl or more. Materials with any acoustic impedance may be used, such as materials with a range of 3 to 12 MRayl. Higher or lower impedance may be provided. Where the first material 16 provides a rigid structure, the second material 18 is selected for desired attenuation properties with minimal or no consideration of rigidity. For example, acoustically absorbing gels, foams, epoxies, liquids, or other materials with excellent, no or some mechanical support are used. The second material 18 may have a lesser thermal conductivity than the first material [[18]] 16 since the first material 16 acts to cool the transducer 10, allowing the second material 18 to be selected for acoustic properties rather than thermal conduction properties. Combinations of different materials may also be provided in a mixed or structural combination on a micro or macro level.

Please replace the Abstract on page 17 with the following:

~~[0041]~~ Sound absorption backings for ultrasound transducers are provided. A block of material with similar acoustic impedance to the transducer material is provided adjacent to the material. For example, a solid metal block of material with acoustic impedance that is similar to the acoustic impedance of silicon substrate used for a CMUT is provided. Since the solid block of material may provide high heat

conductivity and a stiff mechanical support without acoustic attenuation, the block is formed to prevent reflections of acoustic energy back toward the sensor. In one embodiment, a Rayleigh dump is formed on a surface of the solid block of material away from the transducer material. Acoustically absorbing materials are provided along the surface with the Rayleigh dump. ~~As acoustic energy propagates towards the surface, the acoustic energy is reflected at angles away from the transducer material. Some of the acoustic energy propagates through the surface into the attenuating material.~~ After multiple reflections within the Rayleigh dump, the acoustic energy is eventually dissipated through the acoustic attenuation of the additional material alongside the surface.